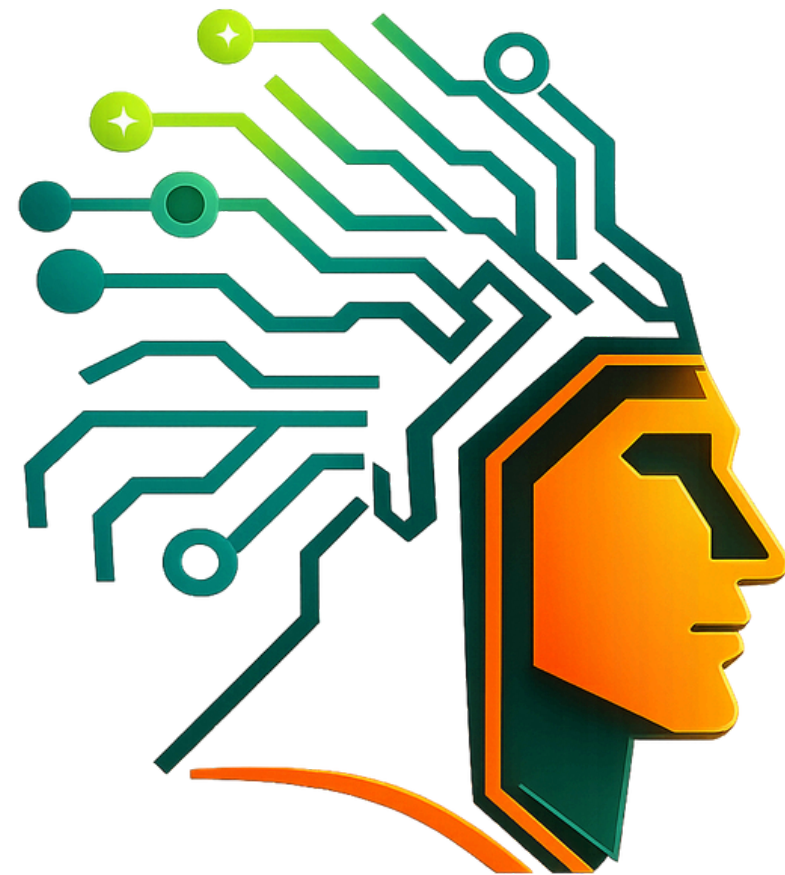




AutoAI-Hub

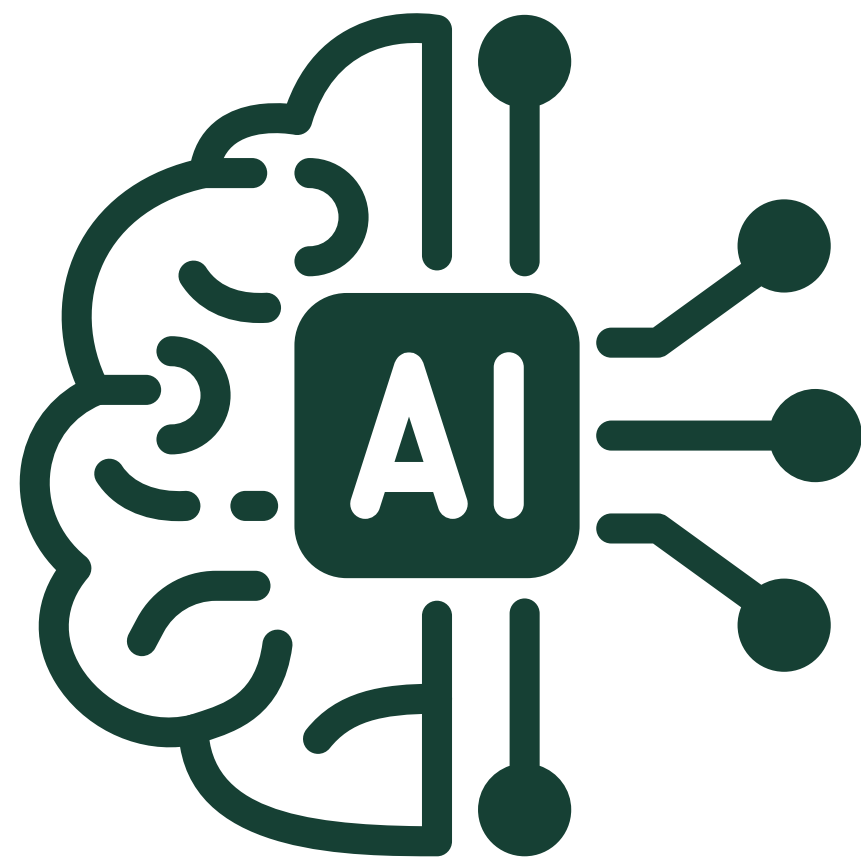
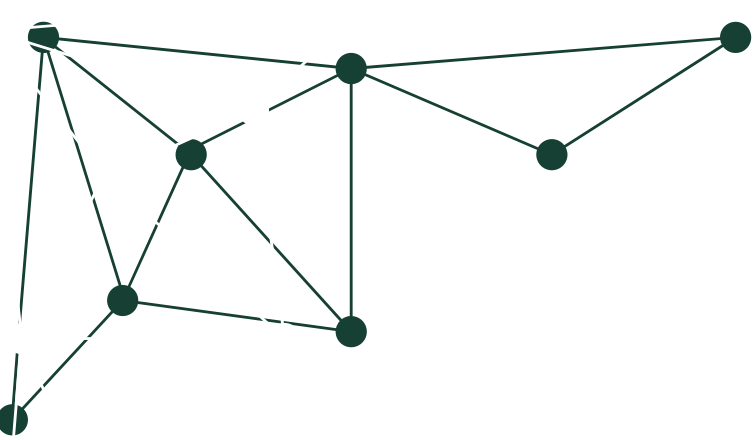


InteliGente

From Data to Society, Democratizing Machine Learning for Everyone

AI4PEP-BRAZIL

**WHO ARE WE TEACHING AI
TO BE: A MIRROR OF THE
WORLD OR AN AGENT OF
TRANSFORMATION?**



Artificial Intelligence is **reshaping how we learn, work, research, and solve complex problems.** From healthcare and education to climate action and public services, AI can accelerate discovery, improve decisions, and expand human capabilities.

AI: A NEW ERA OF POSSIBILITIES

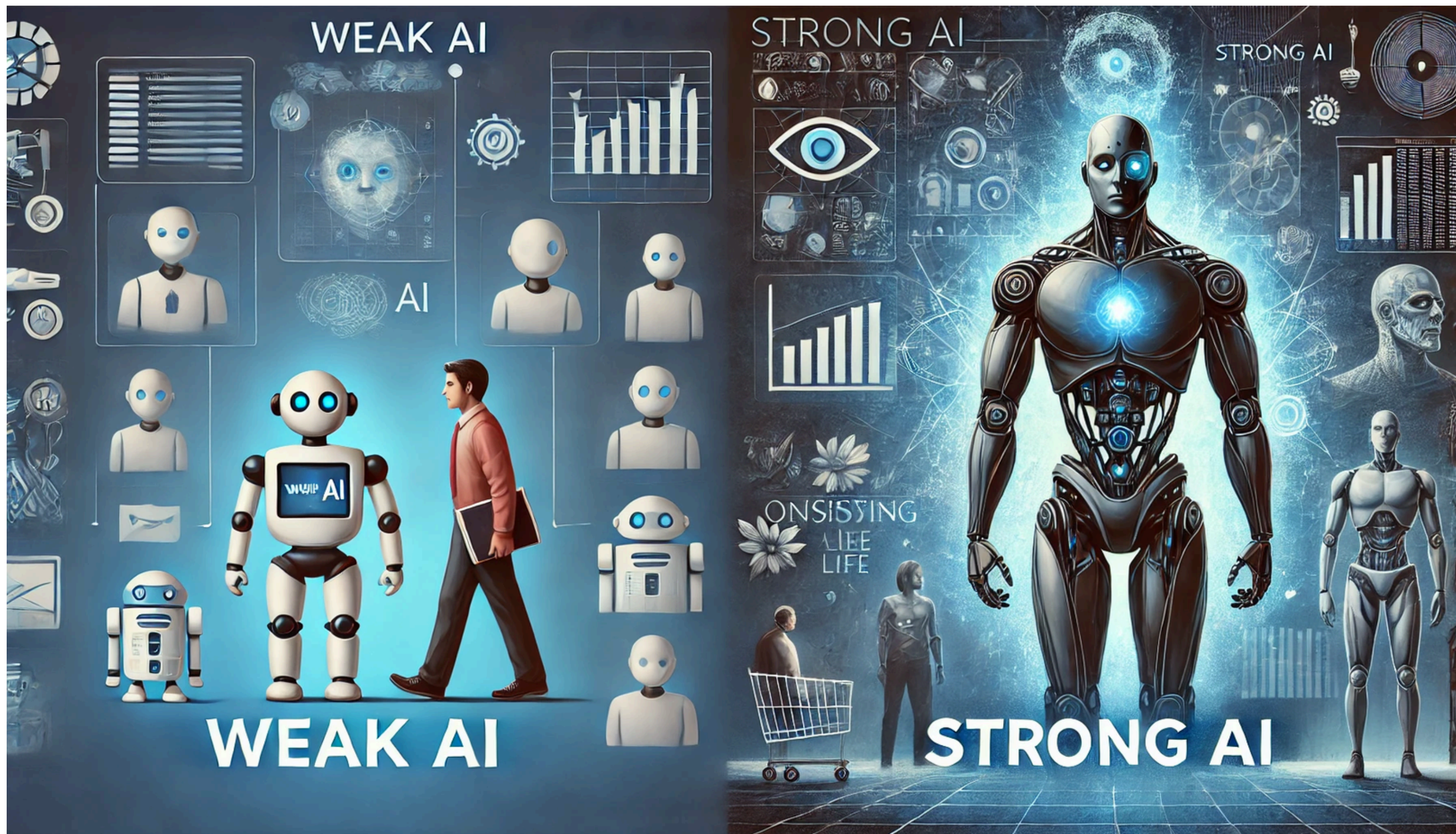


ARTIFICIAL INTELLIGENCE???

“Artificial intelligence, or AI, is a technology that enables computers and machines to simulate human intelligence and problem-solving capabilities.” (IBM)

“The study and design of intelligent agents, where an intelligent agent is a system that perceives its environment and takes actions that maximize its chances of success.” (Livro de Russel e Norvig).

ARTIFICIAL INTELLIGENCE???



Types of artificial intelligence: weak AI vs. strong AI (Artificial General Intelligence—AGI) the most notable distinction is that weak AI specializes in specific tasks, whereas strong AI seeks to replicate human intelligence in a general sense.



Traditional AI vs. Generative AI: The first type merely copies, imitates, or reproduces something that already exists or has already been done. The second model, however, is capable of creating new and original things based on what it has learned.



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SoftBank's billionaire CEO says he was put on Earth to create artificial superintelligence that's 10,000 times smarter than a human—I am super serious about it'

BY WILL DANIEL

June 27, 2024 at 3:01 PM GMT-3



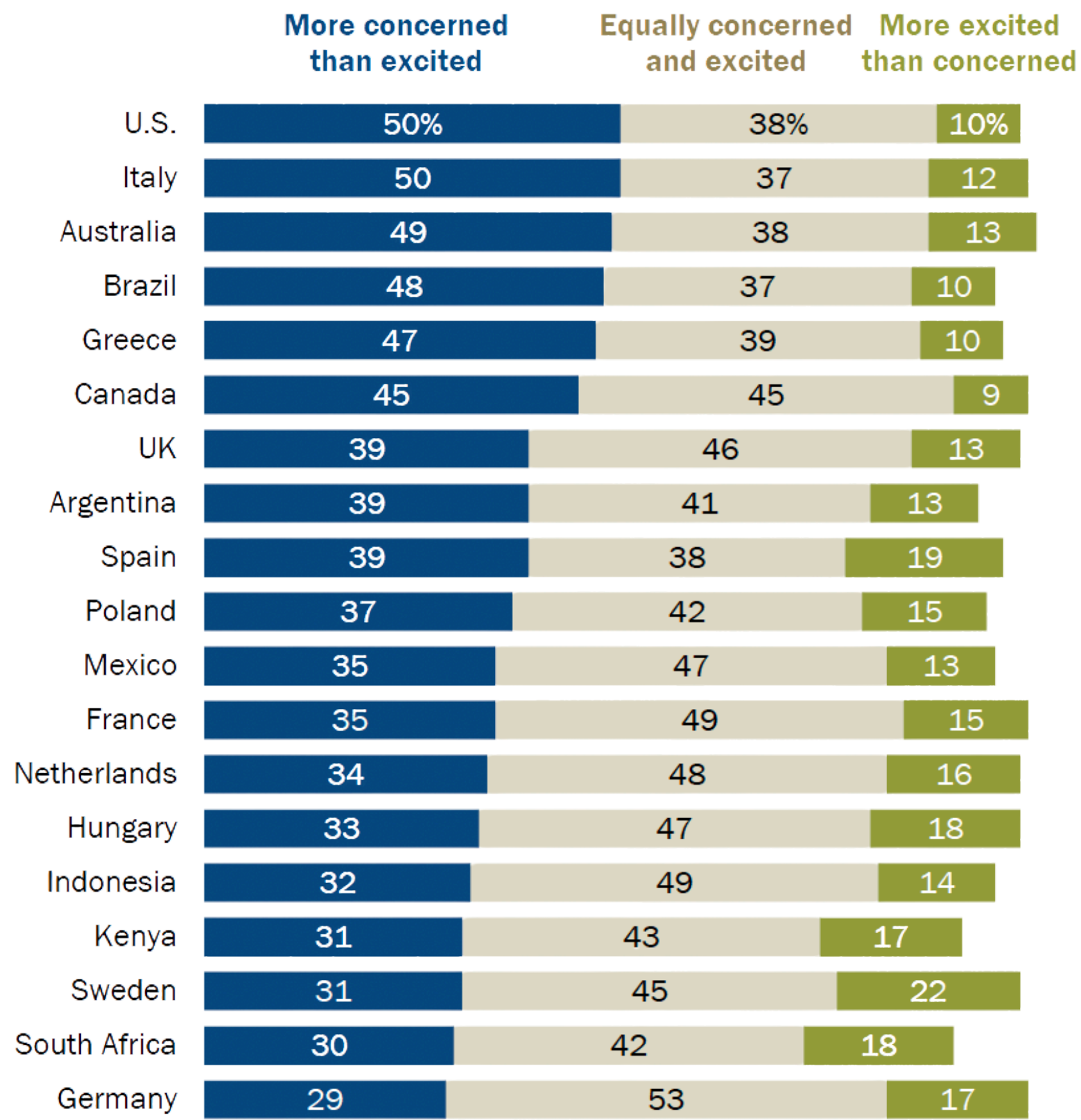
Masayoshi Son, chairman and chief executive officer of SoftBank, speaks during a news conference in Tokyo on June 27, 2024.

PHOTOGRAPHER: TORU HANAI/BLOOMBERG VIA GETTY IMAGES

Another AI theory has emerged, known as artificial superintelligence (ASI), superintelligence, or super AI. However, super AI remains purely speculative, as we have no examples of strong AI (Forbes).

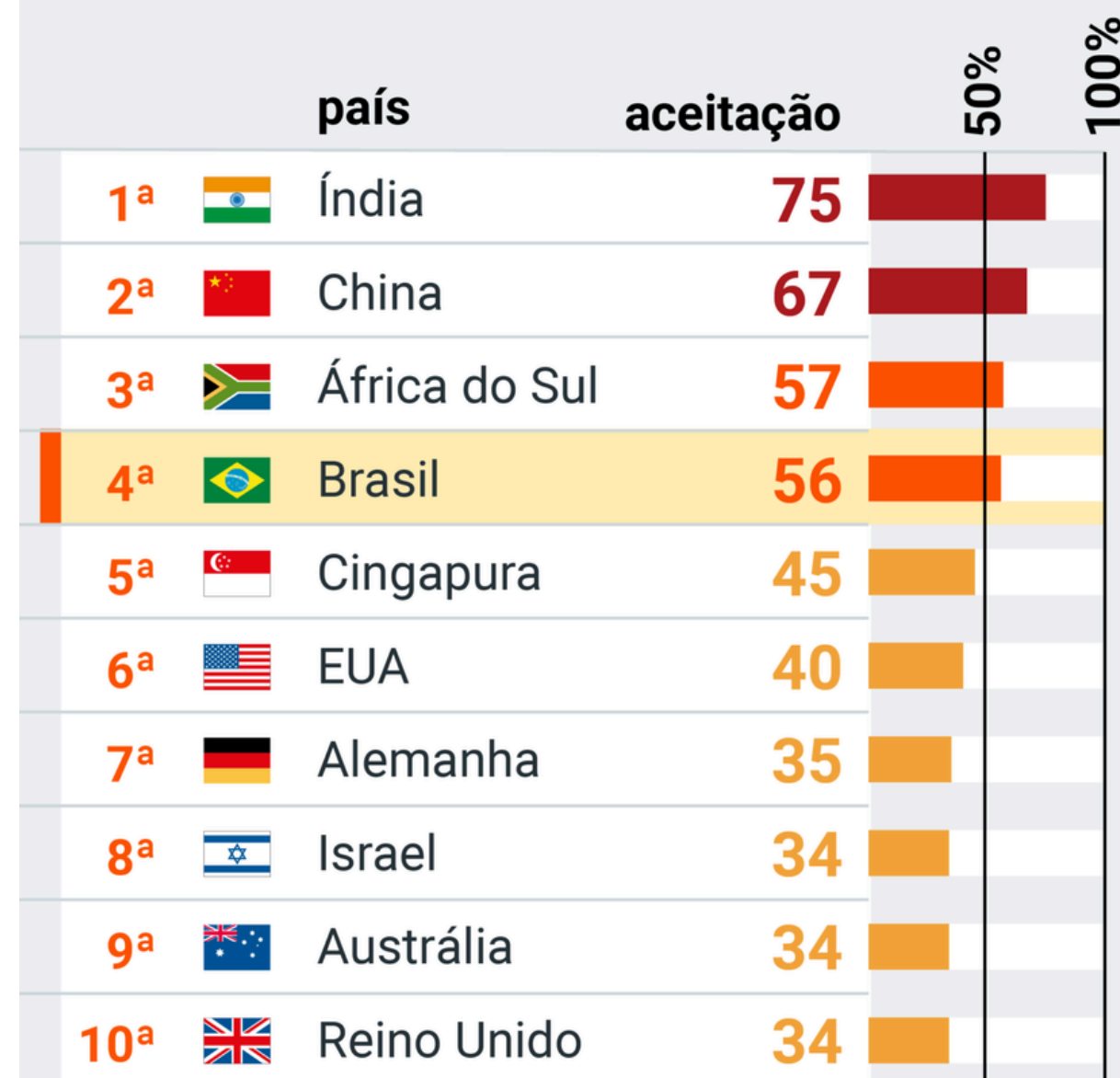


ARTIFICIAL INTELLIGENCE???



PAÍSES QUE MAIS CONFIAM NA INTELIGÊNCIA ARTIFICIAL

população brasileira é a 4ª com maior taxa de aceitação da tecnologia



82%

dos entrevistados disseram **já ter ouvido, lido ou visto algo sobre inteligência artificial**

fontes: KPMG Austrália e Universidade de Queensland

IA Já É Hábito de 93% dos Brasileiros Conectados; Veja Quais São as Ferramentas Mais Usadas

Uma pesquisa da Conversion, em parceria com a ESPM, mostra que 49,7% dos brasileiros utilizam ferramentas de inteligência artificial generativa diariamente



Pacete

03/06/2025

Atualizado há 13 horas



Maioria dos brasileiros confia na inteligência artificial, aponta KPMG

Estudo global, que ouviu 17 mil pessoas de 17 países, sendo mil no Brasil, revela que 84% da população do País acredita na tecnologia

[**Link: Acessar**](#)

[**Link: Acessar**](#)



PRIVACIDADE

Nossos dados são o combustível da IA.



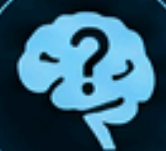
VIÉS E DISCRIMINAÇÃO

A IA aprende com o passado e pode perpetuar injustiças.



FALTA DE REPRESENTATIVIDADE

Nem todas as vozes estão nos dados.



PENSAMENTO CRÍTICO

Respostas convincentes não são sempre verdadeiras.



CRIATIVIDADE E ORIGINALIDADE

Podemos perder diversidade de ideias e soluções.



DEPENDÊNCIA TECNOLÓGICA

Risco de substituir capacidades humanas por conveniência.

DESINFORMAÇÃO

IA pode gerar e amplificar notícias falsas e manipulação.



AUTORIA E PROPRIEDADE

Quem é o autor do que é criado pela IA?



FALTA DE TRANSPARÊNCIA

Muitos sistemas são “caixas-pretas”.



CONCENTRAÇÃO DE PODER

Poucas empresas controlam tecnologia e dados.



IMPACTO AMBIENTAL

Treinar modelos consome recursos e energia.



RESPONSABILIDADE

Quem responde quando algo dá errado?



A PERGUNTA NÃO É SE A IA VAI TRANSFORMAR O MUNDO.
É COMO ESCOLHEMOS TRANSFORMÁ-LO.

Relatório de Pesquisa

Inteligência Artificial na Educação Básica: Percepções e Desafios dos Professores



Educação

Sete a cada dez estudantes usam IA na rotina de estudos

Pesquisa da Abmes ouviu 300 estudantes das cinco regiões do país

Tecnologia educacional • Notícia

Estudantes usam IA para transformar textos em vídeos curtos; especialistas fazem alerta sobre recurso

Por meio de plataformas como PDF To Brainrot, convertidas em gravações de poucos minutos e jogos como o Minecraft

PIXELS

In South Korea, young people are victims and perpetrators of pornographic deepfakes

The discovery of the existence of countless Telegram groups dedicated to deepfakes has shaken the country. Young men share pornographic edits of female students, teachers, colleagues and even family members.

By Quentin Le Van

Published on September 3, 2024, at 5:57 pm (Paris) • 4 min read • [Lire en français](#)

Computers & Education

Date: July 2024

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Research article [Get rights and content](#) 

ChatGPT improves creative problem-solving performance in university students: An experimental study

[Marek Urban](#)^a  , [Filip Děchtěrenko](#)^{a b}, [Jiří Lukavský](#)^{a b},
[Veronika Hrabalová](#)^b, [Filip Svacha](#)^c, [Cyril Brom](#)^d, [Kamila Urban](#)^e

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**AI can make each
individual production
better while
simultaneously making
collective production
more standardized**

The Impact of Generative AI on Critical Thinking: Self-Reported Reductions in Cognitive Effort and Confidence Effects From a Survey of Knowledge Workers

Hao-Ping (Hank) Lee, [Advait Sarkar](#), [Lev Tankelevitch](#), Ian Drosos, [Sean Rintel](#), [Richard Banks](#), [Nicholas Wilson](#)

CHI 2025 | April 2025

[DOI](#)

↓ Download BibTex

The rise of Generative AI (GenAI) in knowledge workflows raises questions about its impact on critical thinking skills and practices. We survey 319 knowledge workers to investigate 1) when and how they perceive the enactment of critical thinking when using GenAI, and 2) when and why GenAI affects their effort to do so. Participants shared 936 first-hand examples of using GenAI in work tasks. Quantitatively, when considering both task- and user-specific factors, a user's task-specific self-confidence and confidence in GenAI are predictive of whether critical thinking is enacted and the effort of doing so in GenAI-assisted tasks. Specifically, higher confidence in GenAI is associated with less critical thinking, while higher self-confidence is associated with more critical thinking. Qualitatively, GenAI shifts the nature of critical thinking toward information verification, response integration, and task stewardship. Our insights reveal new design challenges and opportunities for developing GenAI tools for knowledge work.

**The greater the
blind trust in AI, the
less critical thinking
effort is reported.**

A United Nations University report warns that large-scale withdrawals could strain aquifers and river systems; it is estimated that training ChatGPT-5 consumed 1 billion liters of water and utilized an amount of land equivalent to 215 soccer fields.



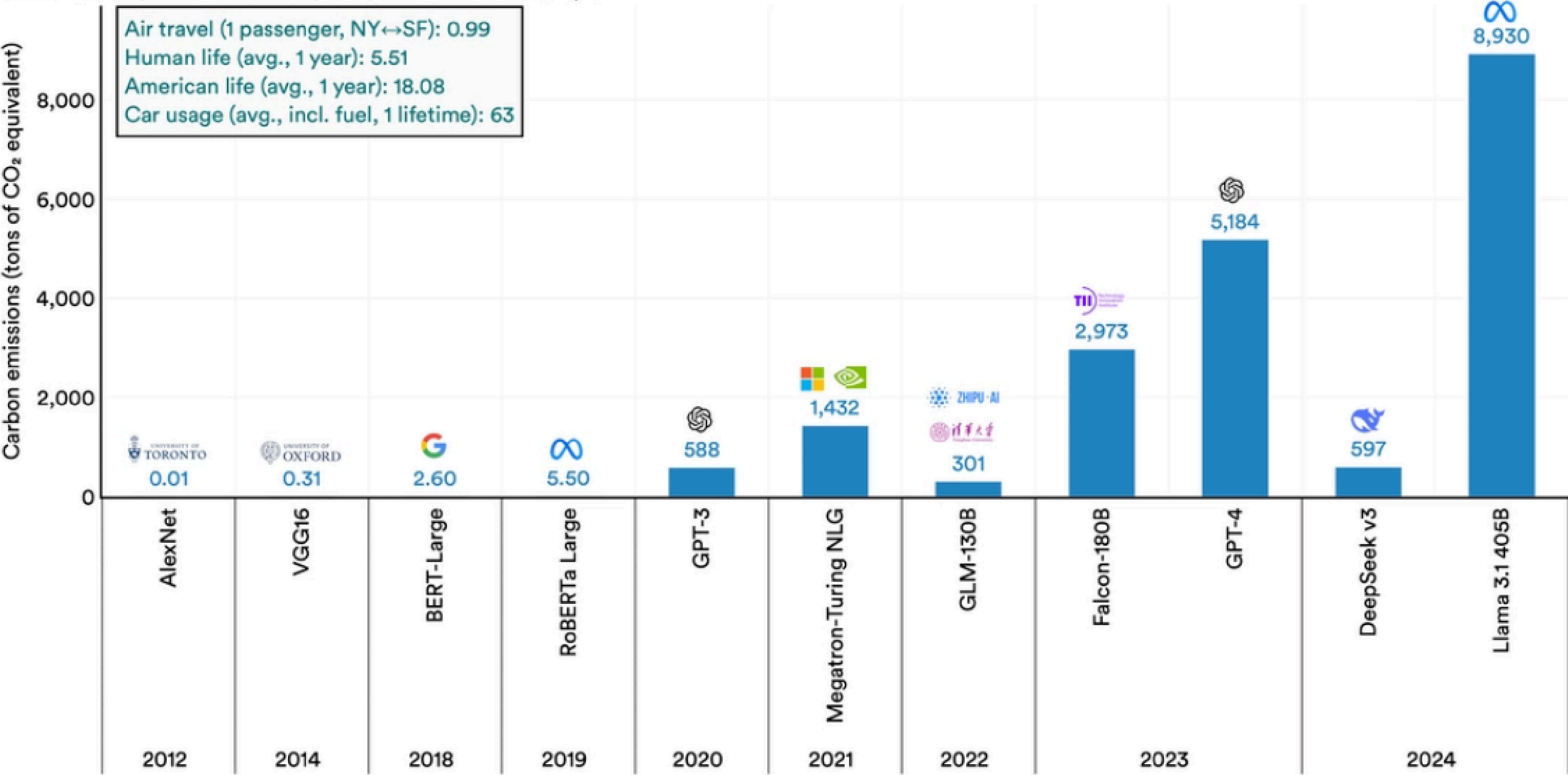
**Nações
Unidas**

ONU News

Perspectiva Global Reportagens Humanas

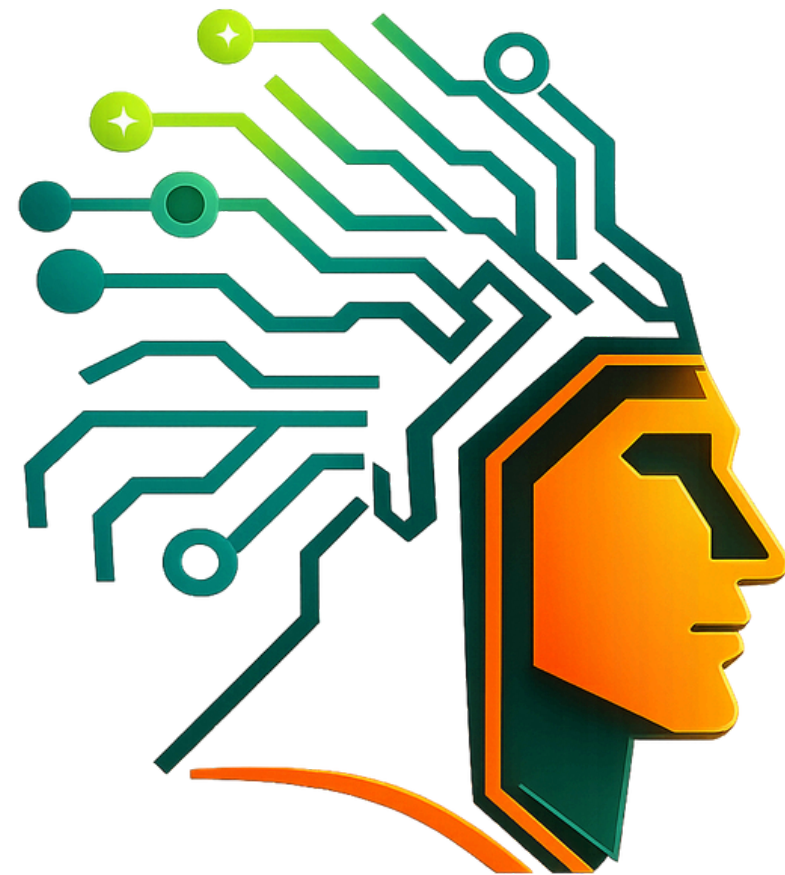
Estimated carbon emissions from training select AI models and real-life activities, 2012–24

Source: AI Index, 2025; Strubell et al., 2019 | Chart: 2025 AI Index report



“Quando a IA assume as tarefas de entrada de uma profissão, como os jovens adquirirão experiência para chegar às funções mais avançadas?”





AutoAI-Hub



InteliGente

From Data to Society, Democratizing Machine Learning for Everyone

AI4PEP-BRAZIL



Limited Access to AI Development

Many students, researchers, and professionals lack accessible environments to build, test, and deploy AI solutions, especially in underserved institutions and regions.



High Technical Barriers

Developing AI solutions often requires advanced knowledge of programming, machine learning pipelines, infrastructure, and model evaluation, limiting participation beyond specialized teams.



Inequality in AI Innovation

Access to advanced AI development infrastructure remains concentrated in well-resourced institutions, widening the gap between those who can experiment with AI and those who can effectively create solutions with it.

AI FOR ALL: OVERCOMING BARRIERS



Fragmented and Complex AI Workflows

Data preparation, feature engineering, model selection, evaluation, and deployment frequently depend on multiple disconnected tools, making AI development time-consuming and difficult to reproduce.



Limited Translation of Data into Real-World Solutions

Organizations and communities often have valuable data but lack the technical capacity to transform it into reliable AI applications that address real-world challenges.

AI FOR ALL: OVERCOMING BARRIERS

THE BIGGEST CHALLENGE: AI BUILT FAR FROM OUR REALITIES

Most AI solutions are designed in the Global North, often without understanding the realities of the Global South - overlooking our local contexts, cultures, inequalities, resource constraints, and community needs.

OUR UNIQUE APPROACH

OBJECTIVES



```
graph LR;
    A[OBJECTIVES] --> B[1. To democratize access to Machine Learning (ML) techniques, allowing non-specialists to use them without the need for knowledge of programming, artificial intelligence, and other disciplines.];
    A --> C[2. Monitoring and predicting diseases, and supporting bioinformatics analysis to assist health scientists];
    A --> D[3. Combating misinformation and educating communities on the ethical and social use of AI.];
```

1.

To democratize access to Machine Learning (ML) techniques, allowing non-specialists to use them without the need for knowledge of programming, artificial intelligence, and other disciplines.

2.

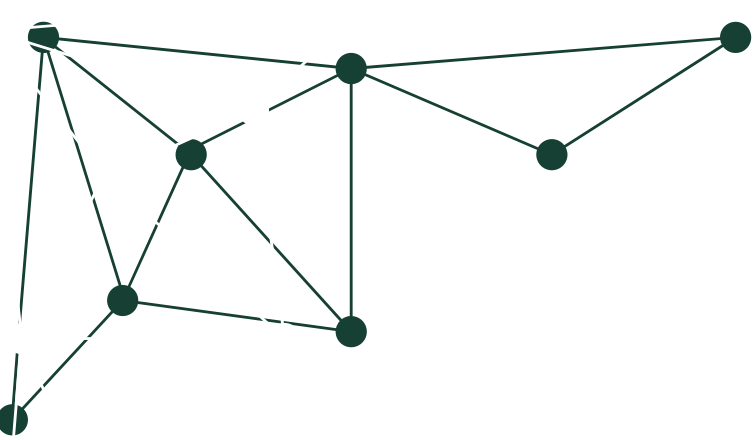
Monitoring and predicting diseases, and supporting bioinformatics analysis to assist health scientists

3.

Combating misinformation and educating communities on the ethical and social use of AI.

OUR MAIN DREAM

AI truly for all — ensuring that every person, regardless of where they live, their financial resources, or their prior technical knowledge, has the opportunity not only to access AI, but also to understand it, create with it, and benefit from it.



We generate and organize data

Because meaningful AI starts with meaningful local data. Data lakes and structured repositories help preserve, integrate, and make our own realities visible.



We democratize AI development through AutoML

Because having data is not enough. AutoML reduces technical barriers and enables students, researchers, professionals, and organizations to transform data into reliable AI models.

BUILDING A COMPLETE AI ECOSYSTEM



We transform models into real solutions

We build usable applications, platforms, and decision-support tools that address concrete challenges in health, education, environment, and society.



We educate people to understand and create AI

Education enables communities to critically understand AI, adapt it to their contexts, and create their own solutions.

BUILDING A COMPLETE AI ECOSYSTEM

DEMOCRATIZING AI FOR ALL

Engagement with
underrepresented
communities



Public
awareness
campaigns in AI



Open-Source
Initiatives



Community-based
development

Short Courses

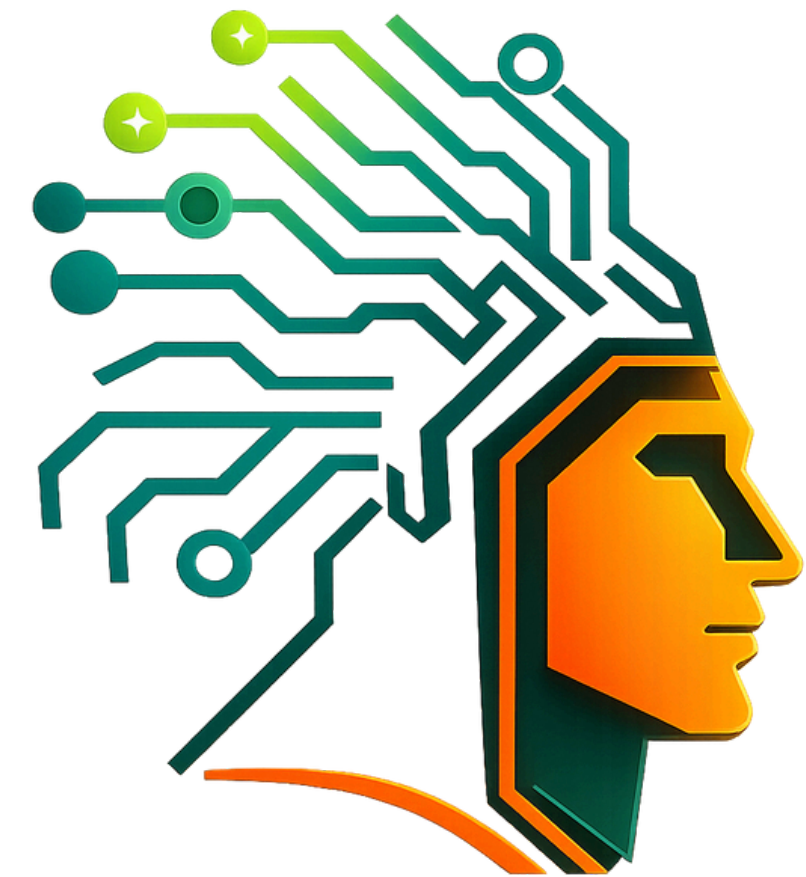


Collaboration
with Industry



International
collaboration





**WE GENERATE AND
ORGANIZE DATA**



FIRST PUBLIC HEALTH DATA INFRASTRUCTURE



395,000+

Registered individuals

7,000,000+

Clinical records

2,900,000+

Clinical examinations

3,000+

people monitored by wearables

5,000+

Brazilian genomes

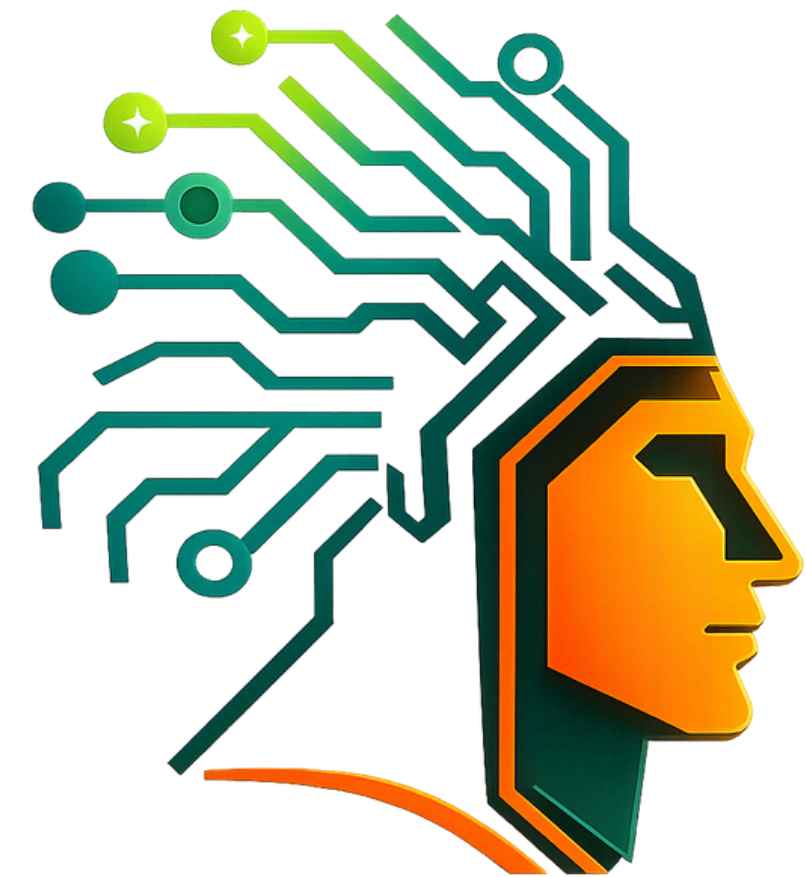
GUARACI: DIVERSE BASES. ONE PATH.



Billions+
health data records

Brazil+
A broad portrait

Guaraci is a download orchestrator : it retrieves public data from Brazil directly from each official source and delivers everything ready to use, with a web interface and fidelity to the original data. Less time searching for databases, more time researching, planning, and creating solutions for the country.



WE DEMOCRATIZE AI DEVELOPMENT THROUGH AUTOML



OPEN-SOURCE PACKAGE FOR BIOLOGICAL SEQUENCES



MathFeature

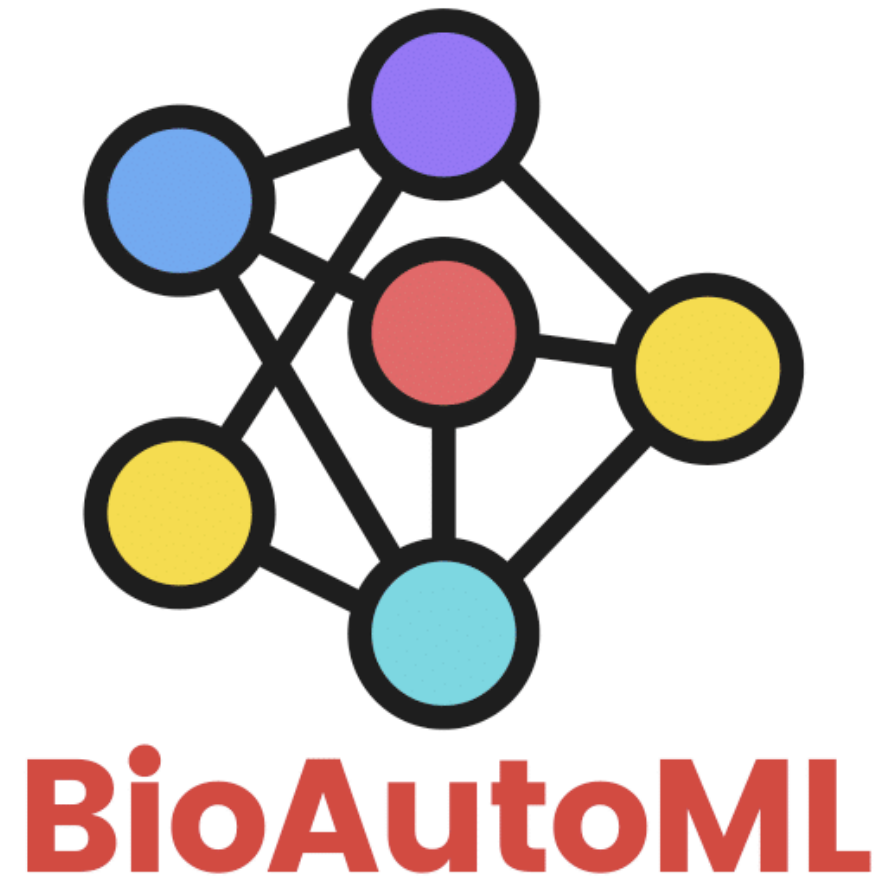
15,000+

Downloads e Views

40+

countries cited our package (at
least 1 researcher - 100+ citations)

BIOAUTOML: END TO END MACHINE LEARNING



IRCAI – UNESCO | Top 10 Global AI Solutions for the SDGs (2025). BioAutoML was selected among the 10 world's most impactful AI initiatives addressing the United Nations Sustainable Development Goals.

50+ citations
from different countries

8,000+
Downloads e Views

10+
Awards and recognitions

BIOAUTOML: END TO END MACHINE LEARNING

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BioAutoML-FAST

Empowering Breakthroughs in Life Sciences with End-to-End Machine Learning

BioAutoML-FAST, a Feature-based Automated SysTem, is a platform that enables users to upload raw biological sequences and automatically build customised classification models for sequence annotation, or regression models to predict quantitative biological activity, such as expression strength and binding affinity, with optional external validation. The platform summarises datasets through statistical metrics and dimensionality-reduction visualisations. It also includes an extensive repository of 60 trained models spanning diverse biological problems, such as anticancer and antimicrobial peptide prediction, non-coding RNA classification, and even taste prediction.

[HTTPS://BIOAUTOML.ICMC.USP.BR/](https://bioautoml.icmc.usp.br/)

INTERACTIONS BETWEEN BIOLOGICAL SEQUENCES



Top 100 Global AI Solutions for the SDGs (2025).

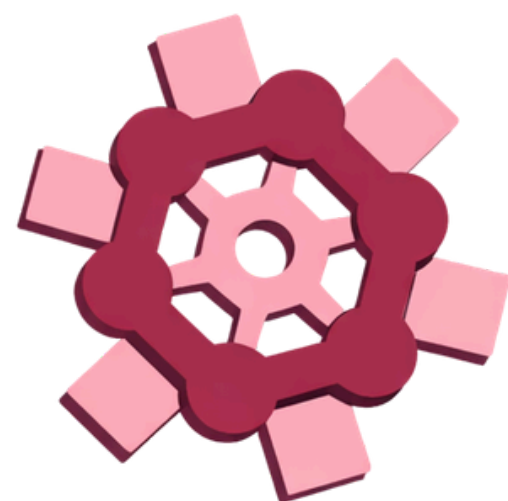
BioPrediction was selected among the world's most impactful AI initiatives addressing the United Nations Sustainable Development Goals.

Selected to participate in
**Prototypes for Humanity
2023, during COP28-
Dubai**, chosen from 3000
entries, from more than
100 countries

40+

Tested across different
application domains

AN OPEN-SOURCE PLATFORM FOR CHEMISTRY



ChemAutoML

Democratizing Cheminformatics

To the best of our knowledge, this will be one of the **largest AutoML platforms** for chemical, biological, and structured data, **developed entirely in the Global South**. It will enable **non-specialists to automatically apply AI** across diverse data types, substantially lowering the technical barriers to AI development and use.

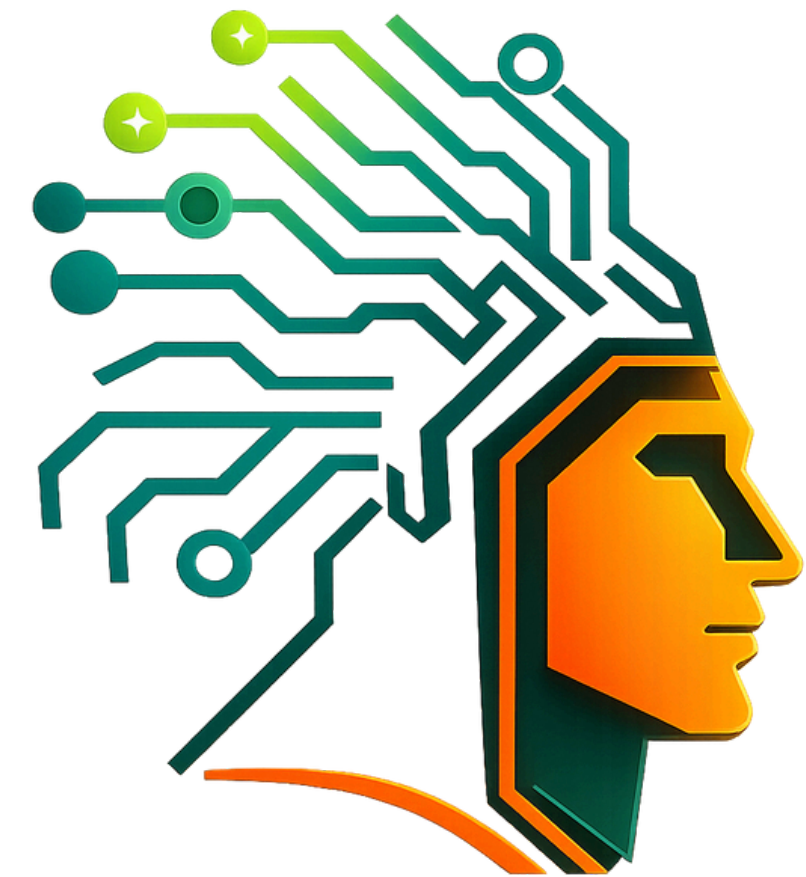
Selected to participate in **Prototypes for Humanity 2025**, chosen from 3,300 entries, from more than 100 countries

COMPLETING THE AI CYCLE FOR HEALTH INNOVATION

From data representation to model development and prediction.

Our solutions help students, researchers, and professionals study vaccines, diseases, drug discovery, biological sequences, molecular patterns, and public health challenges.





**WE TRANSFORM MODELS
INTO REAL SOLUTIONS**



S.N.A.K.E: DIGITAL LITERACY AND REAL-TIME FACT-CHECKING

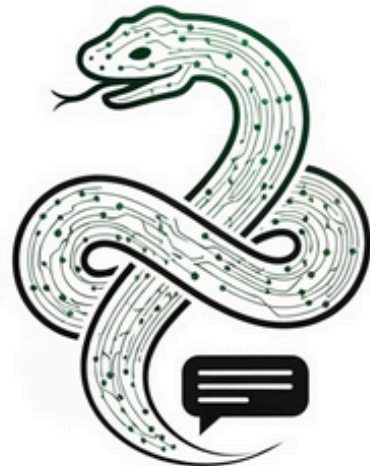
Combate à Desinformação

Analise Notícias com **Inteligência Artificial**

O S.N.A.K.E. é sua ferramenta educacional para análise crítica de notícias. Aprenda a identificar fake news e desenvolva pensamento crítico através de tecnologia avançada.

Começar Análise Gratuita

Saiba Mais



S.N.A.K.E.
System for News Authentication and Knowledge Evaluation

Expert Knowledge-Assisted News System – Your educational tool for critical news analysis and fake news prevention using artificial intelligence.

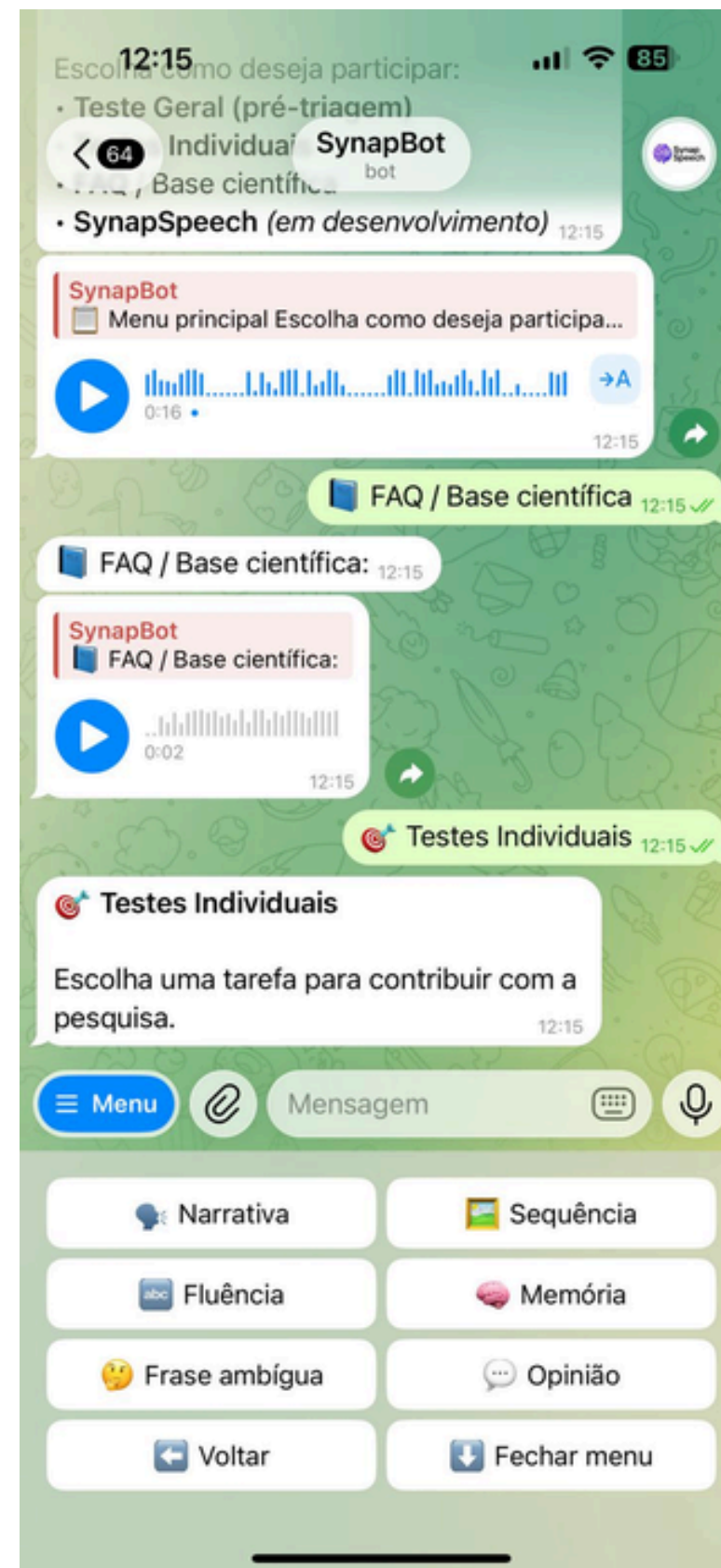
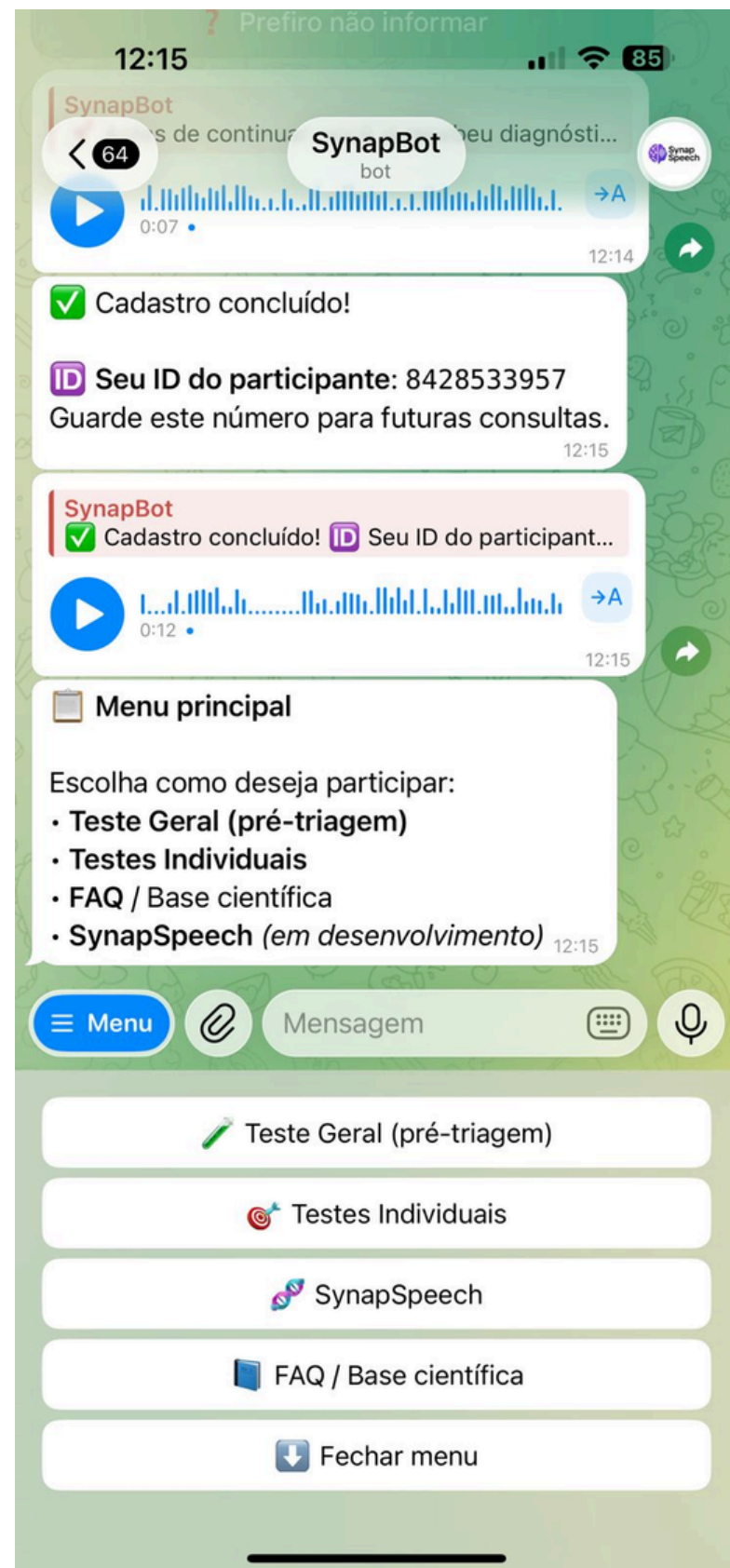
DOMINIQUE - FAKE NEWS DETECTION: TRAINED IN 20,000 NEWS

Open Telegram: Make sure you have the Telegram app installed on your phone or desktop. If not, download it from the App Store

Search for the App: In the search bar at the top, type @ITT_Dominique_bot.

Start the App: Press the Start button.
The app will send you a welcome message and show you the available options.

SYNAPSPEECH: LISTENING TO SIGNALS THROUGH LANGUAGE



A comprehensive pipeline for screening and monitoring cognitive signs associated with Alzheimer's based on spontaneous Brazilian Portuguese speech. Focus on applied, accessible, and low-cost research.

SYNAPSPEECH: LISTENING TO SIGNALS THROUGH LANGUAGE

86%
Accuracy

88%
**(Healthy)
Precision**

82%
**(Unhealthy)
precision**

85%
F1-Score

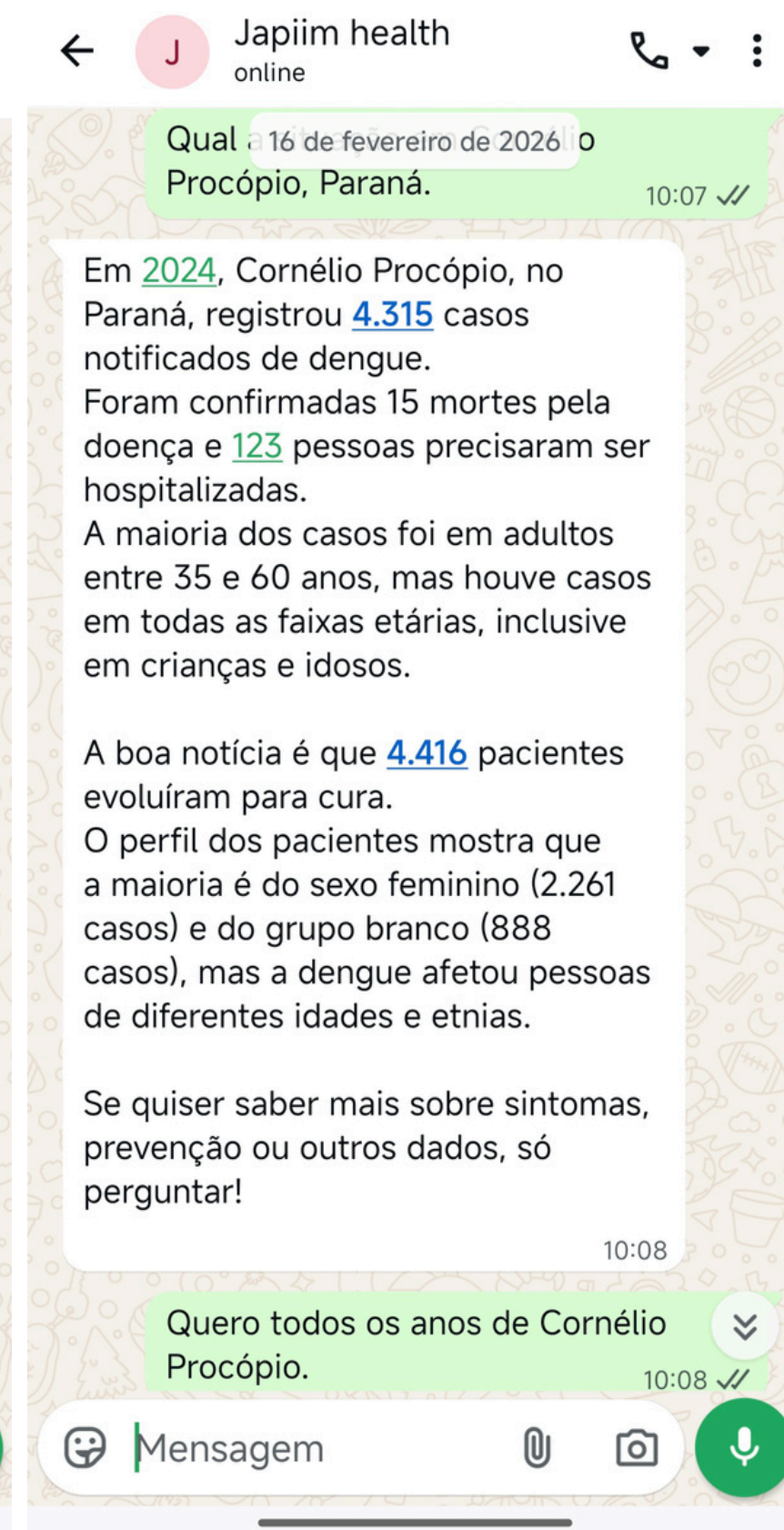
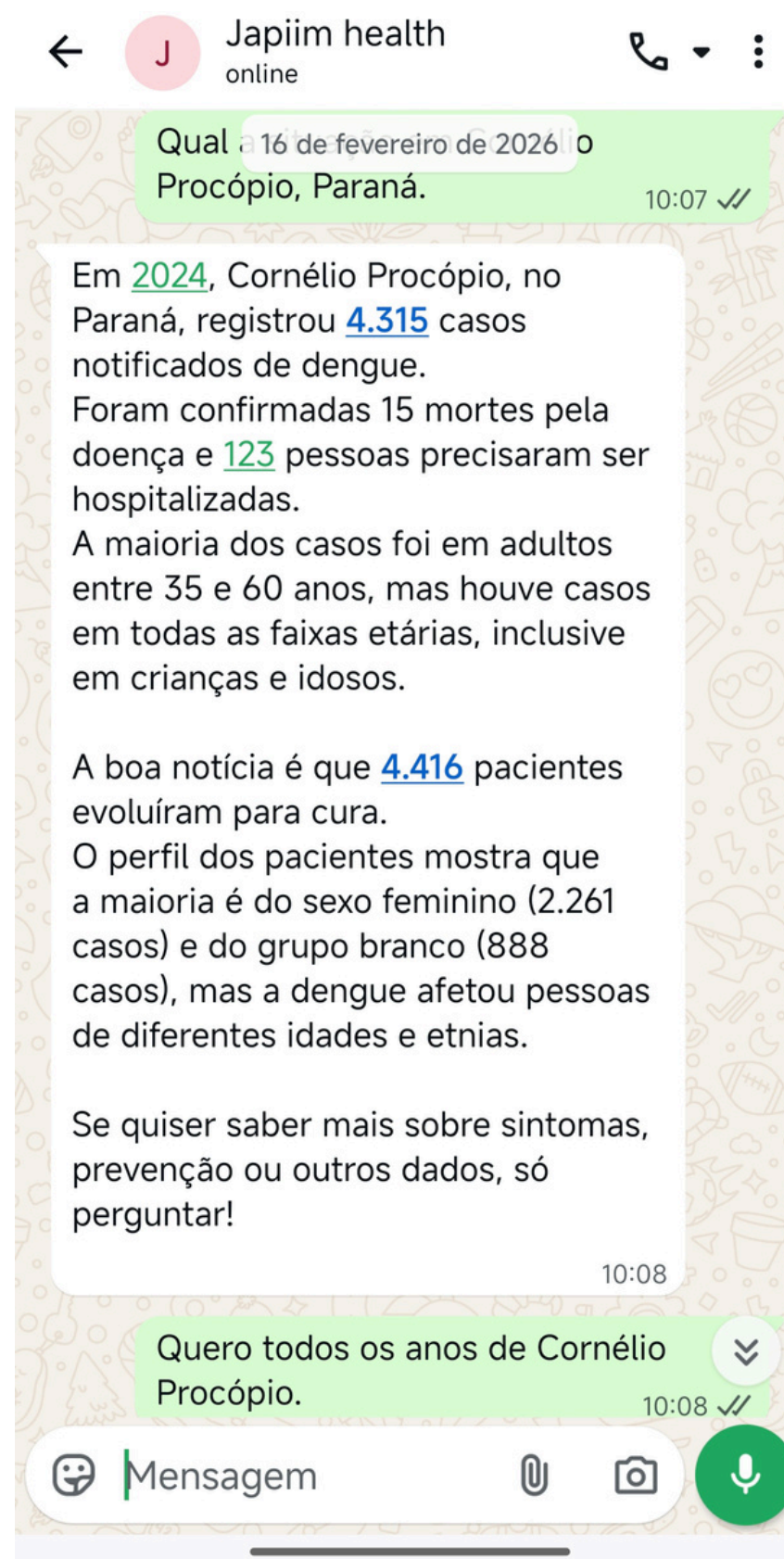
We aim to begin Phase 2 of our experimental validation by building the largest Portuguese-language dataset of its kind, with data from more than 1,000 participants. This large-scale validation will allow us to rigorously assess the reliability and generalizability of our results before making the solution available

Public Health in the Palm of Your Hand

Japiim translates complex SUS (Brazilian public healthcare system) data into simple WhatsApp conversations. Official, fast, and accessible information for everyone.

Japiim is an Artificial Intelligence Chatbot that "weaves" connections between complex health databases across Brazil to deliver **vital information to those who need it most: you.**

JAPIIM HEALTH



SONAR MUNICIPAL



Sugestão de Políticas Públicas

Projetos de Lei

Metodologia

Contato



Ex.: Como reduzir a violência urbana em bairros centrais?



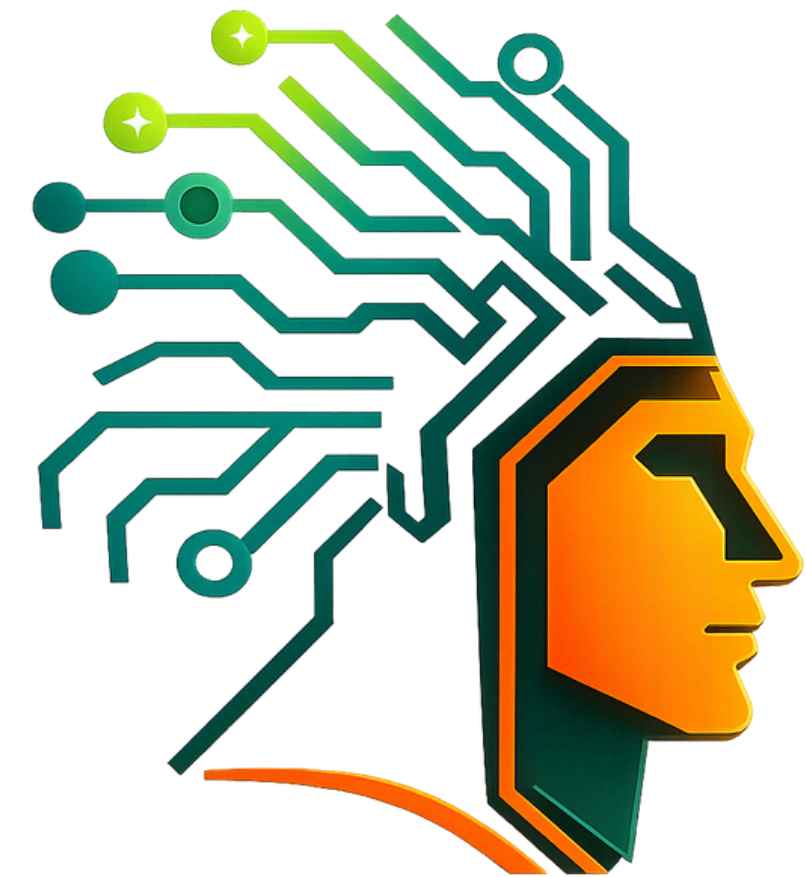
Como reduzir a violência urbana em bairros centrais?

Políticas para aumentar a arrecadação sem subir impostos

Como diminuir evasão escolar no ensino médio?

Ideias para melhorar mobilidade e trânsito em horário de pico

Como ampliar o acesso a saneamento básico rapidamente?



**WE EDUCATE PEOPLE TO
UNDERSTAND
AND CREATE AI**



AI LITERACY FOR ALL



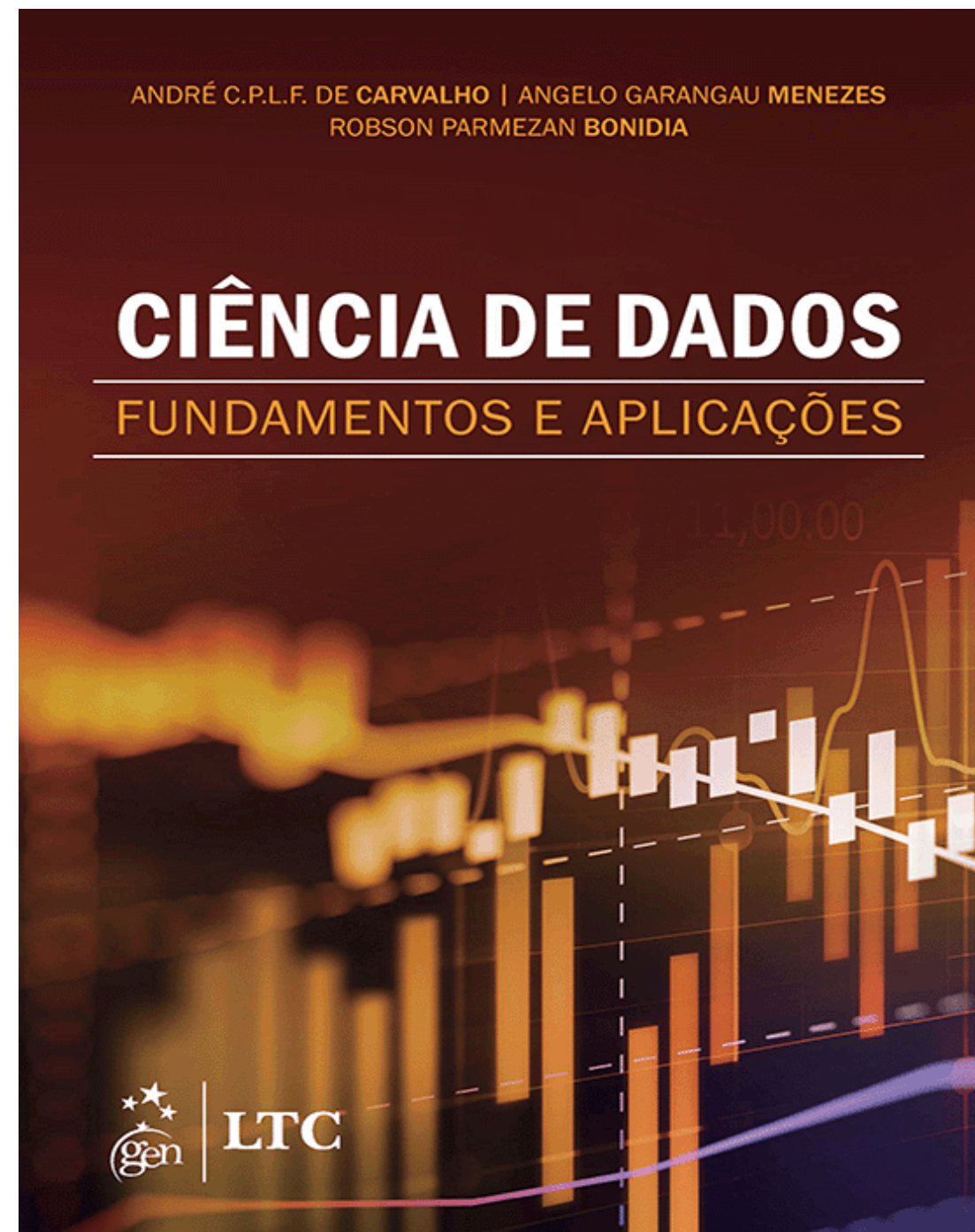
IRCAI – UNESCO | Top 100 Global AI Solutions for the SDGs (2025). InteliGente was selected among the world's most impactful AI initiatives addressing the United Nations Sustainable Development Goals **(Rated Excellent)**

5000+
Qualified individuals

10+
awards and recognitions

Thousands of accesses
to our materials

AI LITERACY FOR ALL



AI LITERACY FOR ALL



AI LITERACY FOR ALL





**Japiim
Digital**

*Das Periferias
à Amazônia*

Indigenous communities

Quilombola communities

Riverside communities

Peripheral communities

Democratize access to and the ethical use of Artificial Intelligence, focusing on rural, forest, and water-based communities. Our purpose is to break down barriers and ensure that no community is left behind in the AI revolution, promoting inclusion and opportunities for all.

OUR IMPACT

300,000+

Accesses, reaching a
broad audience

45+

Awards and
recognitions

350+

Academic citations

50+

Countries have cited our
tools

60+

News published in
media

5000+

Qualified individuals

50+

conference and journal
papers

15+

solutions and projects

1,000,000+

Social media impressions

OUR IMPACT



\$ 3,000,000+ of dollars
in funding secured by the ecosystem

PROTOTYPES
FOR **HUMANITY**



IRCAI Top 100 – Global AI & SDG Index
RESULTS ANNOUNCED



FALLING
WALLS
LAB



Santander X

COUNTRIES THAT ACCESSED OUR PAGES



CITIES IN BRAZIL THAT ACCESSED OUR PAGES



OUR TEAM



OUR TEAM

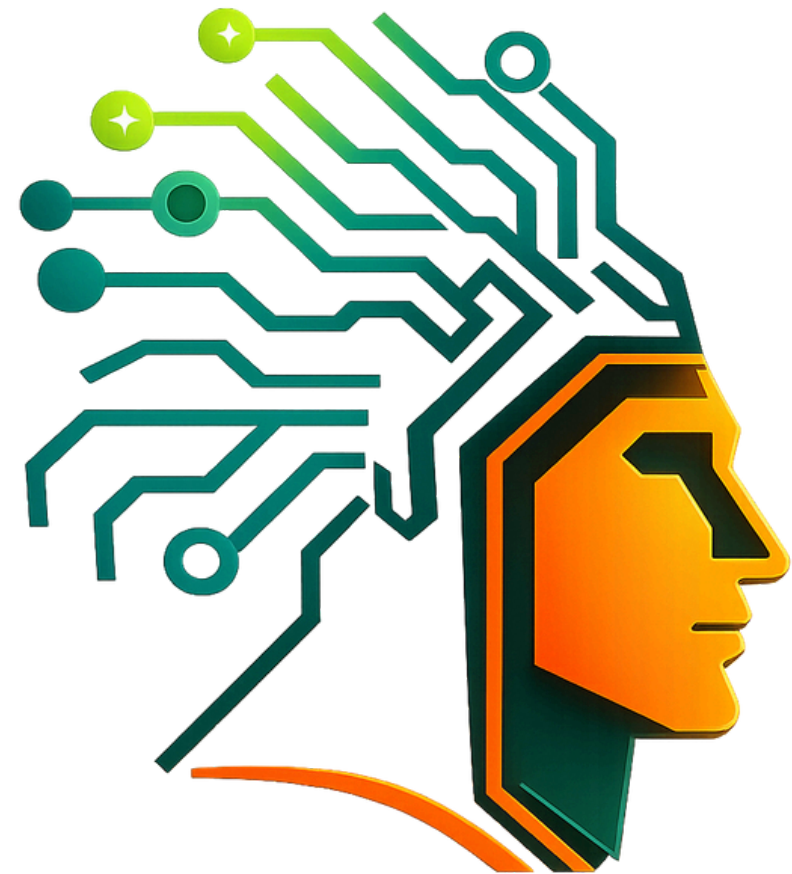


ACKNOWLEDGMENTS



**UK International
Development**

Partnership | Progress | Prosperity



THANK YOU!!!